

REMARKS

Reconsideration of the instant application is respectfully requested. The present amendment is responsive to the Office Action of January 22, 2004, in which claims 1-20 are presently pending. Of those, claims 1-20 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. The specific grounds for the §112, second paragraph rejections are set forth in further detail on pages 2-5 of the present Office Action.

With regard to the art of record, claims 1-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,983,380 to Motika, et al. The specific grounds for the §103 rejections are set forth in further detail on pages 6-8 of the present Office Action. For the following reasons, however, it is respectfully submitted that the application is now in condition for allowance.

As an initial matter, paragraphs [0030] and [0031] of the specification have been amended as reflected above in order to correct typographical errors discovered therein. In addition, Figures 2-6 have been amended to provide suitable descriptive legends for previously unlabeled elements, as reflected in the replacement sheets submitted herewith. However, no new matter has been added since support for the terminology used in the newly provided legends is found in the specification. Accordingly, the objections to Figures 5 and 6 (as set forth in paragraph 2 of the present Office Action) have been addressed and overcome.

The §112, second paragraph rejections of claim 1-20 are addressed and overcome in the same order as is presented in the Office Action by the Examiner as follows:

Claim 1 and 15:

Claims 1 and 15 have been amended to incorporate the Examiner's suggestion of "...switching a source path of input data to said second register between a normal data path and said parallel data path." In addition, claims 1 and 15 have been amended to include language describing the source of the data loaded into the second and first registers. Finally, the amendments to claims 1 and 15 delete the term "matches" and instead substitute the term "is selectively identical to". Thus, each of the §112 rejections to claims 1 and 15 have been addressed and overcome.

Claim 8:

Claim 8 has been cancelled, thereby rendering the §112 rejection thereto moot.

Claim 10:

Claim 10 is amended to become dependent from claim 9, thereby rendering the §112 rejection thereto moot.

Claim 9:

Claim 9 has been amended to incorporate the Examiner's suggestion of "...switching a source path of input data to said second register between a normal data path and a corresponding one of said parallel data paths." In addition, claim 9 has been amended to include language describing the source of the data loaded into the first and subsequent registers. Finally, the amendment to claim 9 deletes the term "matches" and instead substitutes the term "is selectively identical to". Thus, each of the §112 rejections to claim 9 has been addressed and overcome.

Claim 2:

The §112 rejection of claim 2 is overcome by the amendment to claim 1.

Claim 16:

The §112 rejection of claim 16 is overcome by the amendment to claim 15.

Claim 3:

Claim 3 has been amended to add the term “second” before “register”, thereby identifying which register the claim refers to.

Claims 4, 11 and 17:

Claims 4, 11 and 17 have amended to incorporate the term “is statistically biased to be mismatched” in lieu of “may be mismatched”. This positively recites the statistical nature of the bitflip logic mechanism 28 and associated weight logic described in paragraph [0025] et seq. of the specification.

It is also noted that the amendment to claim 4 also overcomes the objection thereto as stated in page 2, paragraph 3 of the present Office Action.

Claims 5-7:

The §112 rejections of claims 5-7 are overcome by the amendment to claim 4.

Claims 12-14:

The §112 rejections of claims 12-14 are overcome by the amendment to claim 11.

Claims 18-20:

The §112 rejections of claims 18-20 are overcome by the amendment to claim 18.

Finally, as to the substantive §103 rejections of claims 1-20, the Applicants respectfully traverse the same for the reason that Motika does not teach or suggest (as is now more particularly claimed) that:

“...data loaded from said parallel data path into said second register is *selectively identical* to data loaded into said first register from said input side of said first register...”
(emphasis added)

In the present Office Action, the Examiner indicates that Figure 1 of Motika discloses a first register (LFSR 12) and a second register (BS Chain). In support of the rejection of claims 1, 15 and 8, the Examiner further states on page 6 that “it would have been obvious to one of ordinary skill in the art at the time the invention was made that the selector switches between the SRI data input and data coming from the LFSR. The artisan would be motivated to do so for the switching the SRI data (parallel data) to be realized at the BS chain (second register).”

However, one skilled in the art will recognize that a linear feedback shift register (LFSR) is a mechanism that generates a pseudorandom sequence of binary bits. As such, any data loaded therein is subjected to a pseudo randomization process that alters the value of stored data. In other words, data initially sent to the LSFR is (to a near mathematical certainty) going to be different from the unaltered data sent to a non-LFSR register.

Therefore, since one of the two registers identified by the Examiner in Motika is an LFSR, the parallel loading of data therein cannot be selectively identical to the data loaded into the second register (BS Chain), as is required by each of the claims. Therefore, even if one skilled in the art were motivated to use the Motika selector switch to load data into both BS Chain and the LFSR, such a modification would still not teach or suggest each of the claimed elements. Accordingly, the §103 rejections to each of the pending claims have been overcome.

Finally, it is also noted that, as to claim 3, Motika does not teach inputting the contents of both the first and second registers into the logic structure for testing. The Examiner indicates on page 7 of the Office Action that "Motika discloses unloading the responses captured in the scan chain registers into the multiple input signature register (MISR)." However, because the Examiner calls the LFSR the first register, it is the contents of this register that must be inputted into the logic structure for comparison in order to satisfy the requirements of claim 3. A simple inspection of Figure 1 of Motika reveals that the LFSR 12 is not connected to MISR 16. Therefore there is no loading of the contents thereof into the MISR. Accordingly, the §103 rejection to claim 3 is also traversed on this additional ground.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0463 maintained by Applicants' attorneys.

Respectfully submitted,
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